

CLAIMS

- 1 Natural wound-treatment system, adapted to change state in a reversible manner by passing from the gel state to the solution state and vice-versa, having polysaccharide macromolecules (10, 20, 30) and aliphatic chains (11-15, 21-24, 31-33) attached to a single polysaccharide macromolecule.
- 2 System according to claim 1, wherein the aliphatic chains (11-15, 21-24, 31-33) are attached by a chemical bond.
- 3 System according to claim 2, wherein the said chemical bond is an ionic bond.
- 4 System according to claim 2, wherein the said chemical bond is a covalent bond.
- 5 System according to claim 4, wherein the chemical bond is an ester bond.
- 6 System according to claim 1, wherein each aliphatic chain is attached by means of an attachment group.
- 7 System according to claim 1, wherein the aliphatic chains (21-24) attached to a polysaccharide macromolecule (20) are, in the gel state, associated with aliphatic chains (11, 12/13, 31) attached to at least one other polysaccharide macromolecule (10, 30).
- 8 System according to claim 7, wherein the associated aliphatic chains (11/21, 12/22/13, 14/32/15/33, 23/31/24) are linked to each other by a physical bond.
- 9 System according to claim 1, wherein the aliphatic chains (11-15, 21-24, 31-33) have at least six carbon atoms.
- 10 System according to claim 1, wherein the polysaccharide is an alginate

11. Method for producing the wound-treatment system of claim 1, during which polysaccharide macromolecules (41) and aliphatic chains (44) each provided with a single attachment group are used and the said polysaccharide macromolecules (41) and the said aliphatic chains (44) are brought into contact so as to attach aliphatic chains (44) to the macromolecules (41).

12. Method according to claim 11, wherein the attachment group of the aliphatic chains is activated by ionisation.

13. Method according to claim 12, wherein the aliphatic chains provided with an attachment group are molecules of aliphatic amine.

14. Method according to claim 11, wherein the molecules of polysaccharide and the aliphatic chains provided with an attachment group are placed in a water-alcohol solution.

15. Natural wound-treatment system according to claim 1, wherein the molecules (60) of an active principle are trapped in alveoli (54, 55) of the system in the gel state.

16. Natural wound-treatment system according to claim 1, wherein living cells (70) are trapped in alveoli (71, 72) of the system in the gel state.